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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/017,360	12/14/2001	Charles Trushell	US010673	8092		
24737 75	08/11/2004		EXAMINER			
	ELLECTUAL PROPER	GUHARAY, KARABI				
P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			ART UNIT	PAPER NUMBER		
	BRIARCEIT MANOK, N1 10310			2879		
			DATE MAILED: 08/11/2004			

Please find below and/or attached an Office communication concerning this application or proceeding.

	Applies	tion No.	Applicant(s)	
Office Action Summary				
		360	TRUSHELL, CHARLES	
Office Action Summary	Examin	er	Art Unit	1
		Guharay	2879	
The MAILING DATE of this comm	nunication appears on t	he cover sheet with the d	orrespondence ad	dress
A SHORTENED STATUTORY PERIOR THE MAILING DATE OF THIS COMM  - Extensions of time may be available under the provisafter SIX (6) MONTHS from the mailing date of this of the period for reply specified above is less than this if NO period for reply is specified above, the maximuter of the period for the period for the period for Any reply received by the Office later than three more earned patent term adjustment. See 37 CFR 1.704(	UNICATION. sions of 37 CFR 1.136(a). In no communication. ty (30) days, a reply within the s m statutory period will apply and reply will, by statute, cause the a ths after the mailing date of this	event, however, may a reply be tir tatutory minimum of thirty (30) day will expire SIX (6) MONTHS from pplication to become ABANDONE	nely filed  /s will be considered timely  the mailing date of this co ED (35 U.S.C. § 133).	
Status				
<ul> <li>1) Responsive to communication(s)</li> <li>2a) This action is FINAL.</li> <li>3) Since this application is in condit closed in accordance with the present the condition of the conditio</li></ul>	2b) This action is ion for allowance exce	non-final. pt for formal matters, pro		e merits is
Disposition of Claims				
4) ☐ Claim(s) 1-24 is/are pending in the day of the above claim(s) 17-20 is 5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) 1-16, 21-24 is/are reject to result of the day o	s/are withdrawn from coted.			
Application Papers				
9) The specification is objected to be 10) The drawing(s) filed on is/2 Applicant may not request that any of Replacement drawing sheet(s) inclu 11) The oath or declaration is objected	are: a) accepted or objection to the drawing(s ding the correction is requ	) be held in abeyance. Se uired if the drawing(s) is ob	e 37 CFR 1.85(a). ojected to. See 37 CF	, ,
Priority under 35 U.S.C. § 119				
12) Acknowledgment is made of a cla a) All b) Some * c) None of 1. Certified copies of the prior 2. Certified copies of the prior 3. Copies of the certified cop application from the Intern * See the attached detailed Office a	f: rity documents have be rity documents have be ies of the priority docur ational Bureau (PCT R	een received. een received in Applicat ments have been receiv ule 17.2(a)).	ion No ed in this National	Stage
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Revie  3) Information Disclosure Statement(s) (PTO-144 Paper No(s)/Mail Date		4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:	ate	O-152)

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Amendment, filed on 25 May 2004 has been considered and entered.

Amendment of claim 2 overcomes the objections to the claims 2-9.

Amendment of claim 12 overcomes the rejection of claims 12-16 under 35 U.S.C 112 second paragraph.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-16, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trushell (US 5552665), in view of Kaduk et al. (US 3875455).

Regarding claim 1, Trushell discloses an electric lamp (Fig 1) consisting essentially a lamp envelope (3) having an inner surface (15), means within the lamp for generating UV radiation, a layer of a luminescent material (17) adjacent the inner surface of the lamp envelope for generating visible light when impinged by the UV radiation, a reflective layer (16) being disposed between the inner surface of the lamp envelope and the luminescent layer (Fig 1) for reflecting UV radiation which has passed through the layer of luminescent material back into the luminescent layer for increasing the visible light output of the luminescent layer, the reflective layer consisting of particulate non-fluorescent oxidic material (gamma-alumina, lines 41-56 of column 2, and lines 45-61 of column 4), further process limitations are not given any patentable

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weight since method of forming the device is not germane to the issue of patentability of the device itself.

But Trushell fail to disclose a getter material mixed with the UV reflective oxidic material.

However, in the same field of electric lamp Kaduk et al. disclose an undercoat layer containing UV reflecting material of alumina particulate as in Trushell's device together with a getter material comprising a thermally decomposed getter precursor, MgO (lines 1-24 of column 3), for gettering action on the gas fill in the lamp (lines 51- 54 of column 4).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mix a getter material in the undercoat layer, as disclosed by Kaduk et al., in the device of Trushell, such undercoat layer will provide reflection of light as well as gettering action on the gas fill of the lamp.

Regarding claim 2, Kudak discloses that the reflective layer (undercoat layer 11) comprises sintered mixture of particulate aluminum oxide and a getter material of alkaline earth metal oxide (MgO), which is a getter material. Further limitation of method of forming the mixture is not germane to the patentability of the lamp. The same reason for combining art as in claim 1 applies.

Regarding claim 3, Kudak discloses that the undercoat layer 11 is sintered prior to the envelope being sealed (see 47-63 of Col 3). The same reason for combining art as in claim 1 applies.

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Regarding claims 4, 6 & 8, Kudak discloses that the getter material includes MgO. The same reason for combining art as in claim 1 applies.

Claims 5 & 9, Kudak recites sintered mixture comprises a thermal decomposition of a mixture of a soluble oxide precursor of alkaline earth metal (MgO) in aqueous suspension of aluminum oxide (lines 1-24 of column 3).

Regarding claim 7, Trushell discloses that the phosphor layer comprises halophosphate phosphor (line 20 of Col 5).

Regarding claim 10, Trushell discloses that the means for generating ultraviolet radiation comprises a filling of an ionizable material, a rare gas and a pair of discharge electrode 6 (lines 45-56 of column 4).

Regarding claim 11, Trushell discloses that the pair of discharge electrodes 6 each adjacent a respective sealed end (Fig 1).

Regarding claim 12, Trushell discloses a low pressure mercury vapor fluorescent lamp (Fig 1) comprising a tubular light transmissive lamp envelope 3, having opposing sealed ends 12, a filling of mercury and a rare gas, a pair of discharge electrodes 6 arranged at a respective sealed end (stem 11) of the envelope, means for connecting electrodes (leads 7,9) to the source of electric potential outside of the lamp envelope, a single light transmissive and UV radiation reflecting layer (undercoat layer 16, comprising of an aluminum oxide material, and a layer of luminous material (phosphor layer 12) disposed on the undercoat layer 11 (Fig 1, lines 45-61 of col 4).

But Trushell fail to disclose a getter material mixed with the UV reflective oxidic material.

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However, in the same field of electric lamp Kaduk et al. disclose an undercoat layer containing UV reflecting material of alumina particulate as in Trushell's device together with a getter material comprising a thermally decomposed getter precursor, MgO (lines 1-24 of column 3), for gettering action on the gas fill in the lamp (lines 51- 54 of column 4).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mix a getter material in the undercoat layer, as disclosed by Kaduk et al., in the device of Trushell, such undercoat layer will provide reflection of light as well as gettering action on the gas fill of the lamp.

Regarding claim 13, Kudak discloses that the reflective layer (undercoat layer 11) comprises sintered mixture of particulate aluminum oxide and a getter material of alkaline earth metal oxide (MgO), which is a getter material. The same reason for combining art as in claim 1 applies.

Further limitation of method of forming the mixture is not germane to the patentability of the lamp.

Regarding claim 14, Kudak discloses that the undercoat layer 11 is sintered prior to the envelope being sealed (see 47-63 of Col 3).

Regarding claim 15, Kudak discloses that the getter material includes MgO.

Regarding claim 16, Kudak discloses that the sintered mixture comprises a thermal decomposition of a mixture of a soluble oxide precursor of alkaline earth metal (MgO) in aqueous suspension of aluminum oxide (lines 1-24 of column 3).

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Regarding claims 21-24, Trushell discloses a single reflective layer (16) directly disposed on the inner surface (15) of the lamp envelope and is continuous and aperture free.

### Response to Arguments

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

#### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 2879

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